(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau





(43) International Publication Date 22 January 2004 (22.01.2004)

PCT

(10) International Publication Number WO 2004/007168 A1

(51) International Patent Classification7:

B29C 45/17

(21) International Application Number:

PCT/NL2003/000286

(22) International Filing Date: 15 April 2003 (15.04.2003)

(25) Filing Language:

Dutch

(26) Publication Language:

English

(30) Priority Data: 1021064

12 July 2002 (12.07.2002) NI

(71) Applicant (for all designated States except US): F.T. EN-GINEERING B.V. [NL/NL]; Spegelt 12, NL-5674 CD Nuenen (NL).

(72) Inventor; and

(75) Inventor/Applicant (for US only): KRUIDERING, Ralph [NL/NL]; St. Lambertusstraat 23, NL-5266 AC Cromvoirt (NL). (74) Agent: VAN WESTENBRUGGE, Andries; Nederlandsch Octrooibureau, Scheveningseweg 82, P.O. Box 29720, NL-2502 LS The Hague (NL).

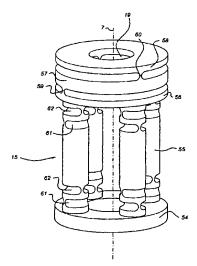
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

[Continued on next page]

(54) Title: ALIGNING MEANS FOR AN INJECTION-MOLDING DEVICE



(57) Abstract: Vertical injection-molding device with aligning means (15) for mutually aligning the mold parts (33, 34) which can be displaced with respect to one another. These aligning means comprise three plates (56-58) placed one on top of the other. The outermost plates (58, 56) are secured to a mold part (33) and to the frame of the injection-molding device on the displacement means arranged thereon. The intermediate plate (57) is secured to the end plates (56, 58) via ribs (16, 17; 59, 60) which extend in the radial direction with respect to the direction of displacement of the moveable mold part (33). These ribs (16, 17; 59, 60) are arranged crosswise, so that an adjustment movement of the outermost plates (56, 58) with respect to one another is possible.